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DATE MAILED: 03/27/2008

NOTICE OF ALLOWANCE AND FEE(S) DUE

881 7590 03/27/2008 STITES & HARBISON PLLC 1199 NORTH FAIRFAX STREET SUITE 900

ALEXANDRIA VA 22314

EXAMINER
ANGADI, MAKI A

ART UNIT PAPER NUMBER

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/856,358 | 05/22/2001 | Takehiko Kezuka | P07223US00/L | 6873 |

TITLE OF INVENTION: ETCHING SOLUTION, ETCHED ARTICLE AND METHOD FOR ETCHED ARTICLE

| APPLN, TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(8) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1440 | \$0 | \$0 | \$1440 | 06/27/2008 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

| appropriate. All further indicated unless corrects maintenance fee notifica | correspondence includir ed below or directed oth | or transmitting the 1880 ig the Patent, advance of herwise in Block 1, by (a | rders and notification of r a) specifying a new corres | naintenance fees wi pondence address; | ill be and/or | mailed to the current (b) indicating a sepa | correspondent rate "FEE AI | ce address as DDRESS" for |
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| CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address) | | | | Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. | | | | |
| 1199 NORTH F SUITE 900 | 7590 03/27 RBISON PLLC AIRFAX STREET | /2008 | I be | Cert | ificate | of Mailing or Trans Transmittal is being icient postage for fin ISSUE FEE address 1) 273-2885, on the d | mission | th the United |
| ALEXANDRIA | , VA 22314 | | | | | | (D | Depositor's name) |
| | | | | | | | | (Signature) |
| | | | | | | | | (Date) |
| APPLICATION NO. | FILING DATE | | FIRST NAMED INVENTOR | | ATTO | RNEY DOCKET NO. | CONFIRMA | TION NO. |
| 09/856,358 | 05/22/2001 | | Takehiko Kezuka | | 1 | 07223US00/L | 687 | '3 |
| | | | AND METHOD FOR ETC | | | | 1 | |
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| nonprovisional | NO | \$1440 | \$0 | \$0 | | \$1440 | 06/27 | 7/2008 |
| EXAM | INER | ART UNIT | CLASS-SUBCLASS | | | | | |
| ANGADI, | | 1792 | 216-103000 | | | | | |
| 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Change of correspondence address for Change of Correspondence Address form PTO/SB/122) attached. The Address' indication for "Fee Address" Indication form PTO/SB/14; See 0.30-20 or more cent) attached. Use of a Customer Number is required. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON | | | (1) the names of up to or agents OR, alternative (2) the name of a single registered attorney or a 2 registered patent atto- listed, no name will be | name of a single firm (having as a member a red attoracy or agent) and the names of up to terred patent attorneys or agents. If no name is no name will be printed. | | | | |
| PLEASE NOTE: Uni recordation as set fort (A) NAME OF ASSI | less an assignee is ident h in 37 CFR 3.11. Comp 3NEE | | data will appear on the p T a substitute for filing an (B) RESIDENCE: (CITY | atent. If an assigne assignment. and STATE OR Co | OUNT | | | |
| 4a. The following fee(s). Issue Fee Publication Fee (N | io small entity discount p | | b. Payment of Fee(s): (Plea A check is enclosed. Payment by credit car The Director is hereby overpayment, to Depo | d. Form PTO-2038 | is atta | ched. | | |
| | s SMALL ENTITY state | is. See 37 CFR 1.27. | ☐ b. Applicant is no lon | | | | | |
| NOTE: The Issue Fee an interest as shown by the | d Publication Fee (if req records of the United Sta | uired) will not be accepte tes Patent and Trademark | d from anyone other than t Office. | ne applicant; a regis | tered a | ttorney or agent; or th | e assignee or | other party in |
| Authorized Signature | | | | Date | | | | |
| Typed or printed name | | | | Registration No | | | | |
| This collection of inform an application. Confiden submitting the complete this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223 | ation is required by 37 C tiality is governed by 35 I application form to the ions for reducing this but firginia 22313-1450. DC 13-1450. | FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary den, should be sent to the ONOT SEND FEES OR | on is required to obtain or r 1.14. This collection is est depending upon the indiv e Chief Information Office COMPLETED FORMS TO | etain a benefit by th imated to take 12 m idual case. Any cor r, U.S. Patent and 1 D THIS ADDRESS. | ie publ ninutes mment Fraden . SENI | ic which is to file (and to complete, including s on the amount of ti- nark Office, U.S. Dep O TO: Commissioner | by the USPT g gathering, po ne you require artment of Cor for Patents, P.6 | O to process) reparing, and to complete nmerce, P.O. O. Box 1450, |

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| STITES & HARBISON PLLC | | ANGADI, MAKI A | | | |
| 1199 NORTH FAI | IRFAX STREET | | ART UNIT | PAPER NUMBER | |
| SUITE 900 ALEXANDRIA V | /A 22314 | | 1792 | | |

Determination of Patent Term Extension under 35 U.S.C. 154 (b)

(application filed after June 7, 1995 but prior to May 29, 2000)

The Patent Term Extension is 0 day(s). Any patent to issue from the above-identified application will include an indication of the 0 day extension on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

| Application No. | Applicant(s) | |
|-----------------|---------------|--|
| 09/856,358 | KEZUKA ET AL. | |
| Examiner | Art Unit | |
| MAKI A. ANGADI | 1792 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included
herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS
NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative
of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- This communication is responsive to 1/22/2008.
- The allowed claim(s) is/are 1,2 and 5-10.
- Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a)

 All b)

 Some* c)

 None of the:
 - 1. X Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____
 - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDOMMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date
 - (b) Including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3. Information Disclosure Statements (PTO/SB/08),
- Paper No./Mail Date 1/21/04, 1/25/06, 7/15/03, 8/21/01
 4. Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date ______.
- 7. X Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. Other _____.

/Binh X Tran/ Primary Examiner, Art Unit 1792 Application/Control Number: 09/856,358 Page 2

Art Unit: 1792

Allowable Subject Matter

1. Claims 1-2 and 5-10 allowed.

2. The following is an examiner's statement of reasons for allowance: The closest prior art of Schwabe (US Patent No. 3,977,925) fails to disclose or suggest an etching solution consisting essentially of: "at least one member selected from the group consisting of an organic acid, an inorganic acid having a pKa at 25°C of about 2 and an organic solvent having a hetero atom whose content ranges from 70 to 99.9% by weight" as defined in applicants' independent claim 1.

FXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Aaron Schulman on 2/15/2008 and confirmed on 2/18/2008.

Claims 15 and 16 are cancelled

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Application/Control Number: 09/856,358

Art Unit: 1792

4. Any inquiry concerning this communication or earlier communications from

the examiner should be directed to MAKI A. ANGADI whose telephone number is

(571)272-8213. The examiner can normally be reached on 8 AM to 4.30 PM.

 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor. Nadine G. Norton can be reached on 571-272-1465. The

fax phone number for the organization where this application or proceeding is

assigned is 571-273-8300.

6. Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information

for published applications may be obtained from either Private PAIR or Public

PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-

free). If you would like assistance from a USPTO Customer Service

Representative or access to the automated information system, call 800-786-

9199 (IN USA OR CANADA) or 571-272-1000.

/M. A. A./

Examiner, Art Unit 1792

/Binh X Tran/

Primary Examiner, Art Unit 1792